

CLAIMS

1. A wave plate comprising two or more retardation films, wherein the retardation films are not bonded to each other in the laser beam transmission area.

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2. The wave plate as claimed in claim 1, wherein the retardation films are bonded to each other in at least a part of other area than the laser beam transmission area.

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3. The wave plate as claimed in claim 1 or 2, wherein at least a part of the retardation film is fixed to a substrate.

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4. The wave plate as claimed in any one of claims 1 to 3, wherein the retardation film comprises a cycloolefin resin film.

5. A wave plate comprising at least two
20 retardation films which are laminated on each other, on at least one surface of said laminated retardation films a glass substrate being laminated, wherein the retardation films, and the retardation film and the glass substrate are lamination-fixed respectively with

different adhesives which are selected from the following adhesives (A) and (B):

an adhesive (A) having a glass transition temperature of not higher than 0°C and a Young's modulus
5 at 23°C of not more than 10 MPa, and

an adhesive (B) having a glass transition temperature of not lower than 40°C and a Young's modulus at 23°C of not less than 30 MPa,

with the proviso that a difference in glass
10 transition temperature between the adhesive (A) and the adhesive (B) is 60°C or more and a difference in Young's modulus at 23°C between the adhesive (A) and the adhesive (B) is 40 MPa or more.

15 6. The wave plate as claimed in claim 5, wherein on both surfaces of the laminated retardation films glass substrates are laminated, the retardation films are lamination-fixed to each other with the adhesive (A), and the retardation film and the glass substrate are fixed to
20 each other with the adhesive (B).

7. The wave plate as claimed in claim 5 or 6, wherein the retardation films are films obtained by stretch-orientating cycloolefin resin films.

8. A process for producing a wave plate, comprising laminating at least two retardation films on each other and laminating a glass substrate on at least one surface of the laminated retardation films, wherein the retardation films, and the retardation film and the glass substrate are lamination-fixed respectively with different adhesives which are selected from the following adhesives (A) and (B):

10 an adhesive (A) having a glass transition temperature of not higher than 0°C and a Young's modulus at 23°C of not more than 10 MPa, and

an adhesive (B) having a glass transition temperature of not lower than 40°C and a Young's modulus
15 at 23°C of not less than 30 MPa,

with the proviso that a difference in glass transition temperature between the adhesive (A) and the adhesive (B) is 60°C or more and a difference in Young's modulus at 23°C between the adhesive (A) and the adhesive
20 (B) is 40 MPa or more.